

What is claimed is:

[Claim 1] 1. A conductive structure comprising:

an integrated circuit;

a substrate; and

a plurality of bumps positioned in between the integrated circuit and the substrate wherein at least one of the bumps comprises:

a first conductive part connected to the integrated circuit at one end;

a second conductive part connected to the integrated circuit at one end;

a conductive connection part connecting the first conductive part and the second conductive part;

a first insulation part surrounding the first conductive part and the second conductive part; and

a second insulation part positioned in between the first conductive part and the second conductive part.

[Claim 2] 2. The conductive structure of claim 1 wherein an anisotropic conductive film (ACF) is positioned in between the integrated circuit and the substrate for providing an electrical connection between the conductive connection part and the substrate.

[Claim 3] 3. The conductive structure of claim 1 wherein the height of the first conductive part and the second conductive part is $H1$, the height of the conductive connection part is $H2$, the height of the first insulation part is $H3$, and $H1 \leq H3 \leq H1 + H2$.

[Claim 4] 4. The conductive structure of claim 1 wherein the first conductive part and the second conductive part comprise gold, nickel, gold alloy, or nickel alloy.

[Claim 5] 5. The conductive structure of claim 1 wherein the conductive connection part comprises gold or gold alloy.

[Claim 6] 6. The conductive structure of claim 1 wherein the first insulation part and the second insulation part comprise light-isolating materials.

[Claim 7] 7. The conductive structure of claim 6 wherein the light-isolating material of the first insulation part and the second insulation part is polyimide.

[Claim 8] 8. The conductive structure of claim 1 wherein the first insulation part and the second insulation part are a monolithically-formed structure.

[Claim 9] 9. The conductive structure of claim 1 wherein the first conductive part includes a first hollow section.

[Claim 10] 10. The conductive structure of claim 1 wherein the second conductive part includes a second hollow section.

[Claim 11] 11. The conductive structure of claim 1 wherein the first conductive part is a post.

[Claim 12] 12. The conductive structure of claim 11 wherein the post is a triangular post, a tetragonal post, a polygonal post, a cylindrical post, or an elliptical post.

[Claim 13] 13. The conductive structure of claim 1 wherein the second conductive part is a post.

[Claim 14] 14. The conductive structure of claim 13 wherein the post is a triangular post, a tetragonal post, a polygonal post, a cylindrical post, or an elliptical post.

[Claim 15] 15. The conductive structure of claim 1 wherein the first conductive part and the second conductive part are a monolithically-formed post.

[Claim 16] 16. The conductive structure of claim 15 wherein the post is a hollow post.

[Claim 17] 17. The conductive structure of claim 16 wherein the second insulation part is located inside the hollow post.

[Claim 18] 18. The conductive structure of claim 17 wherein the hollow post includes an opening.

[Claim 19] 19. The conductive structure of claim 18 wherein the first insulation part and the second insulation part are a monolithically-formed structure.

[Claim 20] 20. A liquid crystal display comprising:
a substrate;
a liquid crystal display region positioned in the center of the substrate;
an integrated circuit positioned on the edge of the substrate;
a plurality of bumps positioned in between the substrate and the integrated circuit for electrically connecting the integrated circuit; and
an anisotropic conductive film for providing an electrical connection between the bumps and the substrate, wherein the plurality of bumps further comprises:

a first conductive part connected to the integrated circuit at one end;
a second conductive part connected to the integrated circuit at one end;
a conductive connection part connecting the first conductive part and the second conductive part;
a first insulation part surrounding the first conductive part and the second conductive part; and
a second insulation part positioned in between the first conductive part and the second conductive part.

[Claim 21] 21. The liquid crystal display of claim 20 wherein the height of the first conductive part and the second conductive part is $H1$, the height of the conductive connection part is $H2$, the height of the first insulation part is $H3$, and $H1 \leq H3 \leq H1 + H2$.

[Claim 22] 22. The liquid crystal display of claim 20 wherein the first conductive part and the second conductive part comprises gold, nickel, gold alloy, or nickel alloy.

[Claim 23] 23. The liquid crystal display of claim 20 wherein the conductive connection part comprises gold or gold alloy.

[Claim 24] 24. The liquid crystal display of claim 20 wherein the first insulation part and the second insulation part comprise light-isolating materials.

[Claim 25] 25. The liquid crystal display of claim 20 wherein the light-isolating material of the first insulation part and the second insulation part is polyimide.

[Claim 26] 26. The liquid crystal display of claim 20 wherein the first insulation part and the second insulation part are a monolithically-formed structure.

[Claim 27] 27. The liquid crystal display of claim 20 wherein the first conductive part includes a first hollow section.

[Claim 28] 28. The liquid crystal display of claim 20 wherein the second conductive part includes a second hollow section.

[Claim 29] 29. The liquid crystal display of claim 20 wherein the first conductive part is a post.

[Claim 30] 30. The liquid crystal display of claim 29 wherein the post is a triangular post, a tetragonal post, a polygonal post, a cylindrical post, or an elliptical post.

[Claim 31] 31. The liquid crystal display of claim 30 wherein the second conductive part is a post.

[Claim 32] 32. The liquid crystal display of claim 31 wherein the post is a triangular post, a tetragonal post, a polygonal post, a cylindrical post, or an elliptical post.

[Claim 33] 33. The liquid crystal display of claim 20 wherein the first conductive part and the second conductive part are a monolithically-formed post.

[Claim 34] 34. The liquid crystal display of claim 33 wherein the post is a hollow post.

[Claim 35] 35. The liquid crystal display of claim 34 wherein the second insulation part is located inside the hollow post.

[Claim 36] 36. The liquid crystal display of claim 35 wherein the hollow post includes an opening.

[Claim 37] 37. The liquid crystal display of claim 36 wherein the first insulation part and the second insulation part are a monolithically-formed structure.